

### **REMARKS**

Applicants have amended claim 24, and canceled claim 43 without prejudice or disclaimer of its subject matter. The amendments to claim 24 include features recited in claim 43. Upon entry of this Amendment, claims 24-42 and 44-47 are pending and under examination.

#### **Regarding the Office Action**

Applicants respectfully traverse the following rejections made in the Office Action:

- (a) rejection of claim 24-27, 29, 36, and 44-47 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Pub. No. 2004/0127224 ("Furukawa") in view of U.S. Patent No. 6,549,781 ("O'Byrne");
- (b) rejection of claims 28, 30, and 31 under 35 U.S.C. § 103(a) as being unpatentable over Furukawa in view of O'Byrne, and in further view of U.S. Patent No. 6,539,221 ("Vasudevan");
- (c) rejection of claims 32-35 under 35 U.S.C. § 103(a) as being unpatentable over Furukawa in view of O'Byrne and Vasudevan, and further in view of U.S. Patent Application Pub. No. 2003/0087641 ("Gustafsson");
- (d) rejection of claims 37-39, 42, and 43 under 35 U.S.C. § 103(a) as being unpatentable over Furukawa in view of O'Byrne, and further in view of Gustafsson; and
- (e) rejection of claims 40 and 41 under 35 U.S.C. § 103(a) as being unpatentable over Furukawa in view of O'Byrne, and further in view of U.S. Patent Application Pub. No. 2003/0123425 ("Walton").

#### **Regarding the Rejections under 35 U.S.C. § 103(a)**

Applicants request reconsideration and withdrawal of the rejections of claims 24-47 under 35 U.S.C. § 103(a) as being unpatentable over Furukawa in view of one or more of O'Byrne, Vasudevan, Gustafsson, and Walton.

The Office Action has not properly resolved the *Graham* factual inquiries, the proper resolution of which is the requirement for establishing a framework for an objective obviousness analysis. See M.P.E.P. § 2141(II), citing to *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ

459 (1966), as reiterated by the U.S. Supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007).

In particular, the Office Action has not properly determined the scope and content of the prior art. Specifically, Furukawa, O’Byrne, Vasudevan, Gustafsson, and Walton, whether taken alone or in any combination, do not teach or suggest what the Office Action attributes to them. In addition, the Office Action has not properly ascertained the differences between the claimed invention and the prior art, at least because the Office Action has not properly interpreted the prior art and considered both the invention and the prior art as a whole. See M.P.E.P. § 2141(II)(B).

Independent claim 24 recites “[a] method for selecting a subset of sites within a whole set of candidate sites for activating one or more radio stations in a telecommunications network.”

The method comprises, in part, the following features:

optimising the initial solution by activating “inactive” sites and/or deactivating “active” sites, in order to minimise a predetermined cost function for the solution, wherein the predetermined cost function includes a term pointing out the presence of pilot pollution in the system, the term including a ratio between global traffic in pilot pollution associated with a set of active cells in an examined solution and maximum pilot pollution that can be found in the potential network configuration, and wherein at least one of the “active” sites is deactivated based on the term pointing out the presence of pilot pollution. (emphasis added)

The above-quoted features include features from claim 43, now canceled. In rejecting claim 43, the Office Action admits that “Furukawa in view of O’Byrne and further in view of Gustafsson fails to explicitly recite ‘wherein the cost function of a solution comprises a further cost item pointing out the ratio between global traffic in pilot pollution associated with the set of active cells in the examined solution and maximum pilot pollution that can be found in the potential network configuration.’” Office Action, p. 21. The Office Action, however, alleges that because the “combination [of the cited references] discloses identifying the areas of possible

problems for pilot pollution . . . it would have been obvious . . . to calculate the pilot pollution associated with the set of active cells in the examined solution as it relates to the maximum pilot pollution that can be found in the potential configuration.” *Id.* Applicants disagree with the allegations.

The Office Action appears to take Official notice of facts not in the record or to rely on “common knowledge” in making this rejection, without direct reliance on a cited prior art reference in support of this allegation. *See* M.P.E.P. § 2144.03. “Official notice unsupported by documentary evidence should *only* be taken by the examiner where the facts asserted to be well-known, or to be common knowledge in the art are capable of *instant and unquestionable* demonstration as being well-known.” *Id.* at § 2144.03(A) (emphases added). Otherwise, “[i]t would not be appropriate for the examiner to take official notice of facts without citing a prior art reference.” *Id.* Furthermore, if Official notice is taken of a fact that is asserted to be “common knowledge,” unsupported by documentary evidence, “[t]he examiner must provide specific factual findings predicated on sound technical and scientific reasoning to support his or her conclusion of common knowledge.” *Id.* at § 2144.03(B).

In this case, the Office Action’s alleged facts are not well-known, not common knowledge, and are not capable of *instant and unquestionable* demonstration as being well-known. For the sake of argument only, even *if* one might consider it common knowledge to:

“identify[] the areas of possible problems for pilot pollution” (Office Action, p. 21; *see also* O’Byrne, col. 4, line 47), such as identifying “areas having too many suitable pilots above a threshold, or too few” (O’Byrne, col. 4, lines 43-44); and

determine potentially suitable pilots in an area by “measuring [a] ratio of the pilot strength ( $E_c$ ) to the total interference ( $I_o$ ),” so as to determine which of the available pilots at a specific location is most suitable, as taught by O’Byrne at col. 4, lines 33-45,

with which Applicants do not necessarily agree, it would not have been *instant and unquestionable* for one of ordinary skill in the art to have a cost item including a specific ratio “between *global traffic* in pilot pollution associated with *a set of active cells* in an examined solution and *maximum pilot pollution* that can be found in the potential network configuration,” as recited in claim 43 (emphases added).

Furthermore, the Office Action’s assertion of common knowledge is not supported by documentary evidence, because the cited references do not teach or suggest the features of claim 43, as admitted by the Office Action at p. 21. Under this circumstance, M.P.E.P. § 2144.03(B) requires the Examiner to provide “specific factual findings *predicated on sound technical and scientific reasoning* to support his conclusion of common knowledge” (emphasis added). The Office Action, however, has merely provided a statement that “[t]he combination [of the cited references] discloses identifying the areas of possible problems for pilot pollution” (Office Action, p. 21), and has failed to provide any “sound technical and scientific reasoning” to support a conclusion of common knowledge, as required by the M.P.E.P.

For at least the foregoing reasons, Furukawa, O’Byrne, Vasudevan, Gustafsson, and Walton, whether taken alone or in combination, do not teach or suggest each and every feature of amended independent claim 24. Accordingly, independent claim 24 is nonobvious over the cited references and should be allowable. Dependent claims 25-42 and 44-47 also should be allowable at least by virtue of their respective dependence from base claim 24, and because they recite additional features not taught or suggested by the cited references. Applicants therefore respectfully request withdrawal of the 35 U.S.C. § 103(a) rejections.

**Conclusion**

Applicants therefore request reconsideration of the application and withdrawal of the rejections. Pending claims 24-42 and 44-47 are in condition for allowance, and Applicants request a favorable action.

The Office Action contains a number of statements reflecting characterizations of the cited art and the claims. Regardless of whether any such statements are identified herein, Applicants decline to automatically subscribe to any such statements or characterizations.

If there are any remaining issues or misunderstandings, Applicants invite the Examiner to telephone the undersigned representative to discuss them.

Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.

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By: 

David M. Longo  
Reg. No. 53,235

/direct telephone: (571) 203-2763/